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HEWLETT-PACKARD COMPANY
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Fort Collins, CO 80527-2400

EXAMINER

KASSA, HILINA S

ART UNIT	PAPER NUMBER
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2625

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/632,132

Applicant(s)

CARROLL, JEREMY JOHN

Examiner

Hilina S. Kassa

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>07/30/03 and 11/24/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Preliminary Amendment

1. The preliminary amendment filed on 07/30/03 has been acknowledged.

Claim Objections

2. Claim 1 is objected to because of the following informalities:

In lines 2-3, **“the or each printer”** should be changed to **“the printer or each printer”**, as **“the”** refers to the printer.

In line 4, **“the or each computer”** should be changed to **“the computer or each computer”**, as **“the”** refers to the computer.

In line 8, **“the or each print job”** should be changed to **“the print job or each print job”**, as **“the”** refers to the printer.

In line 9, **“the or each print job”** should be changed to **“the print job or each print job”**, as **“the”** refers to the printer.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claim 14 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows.

Claims 10-22 recite “a **data carrier**” which does not impart functionality to a computer or computing device, and is thus considered nonfunctional descriptive material. Such nonfunctional descriptive material, in the absence of a functional interrelationship with a computer, does not constitute a statutory process, machine, manufacture or composition of matter and is thus non-statutory per se. While “functional descriptive material” may be claimed as a statutory product (i.e., a “manufacture”) when embodied on a tangible computer readable medium.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-2, 5-8 and 12-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Anderson et al. (US Patent Number 6,646,758 B1).

(1) regarding claim 1:

As shown in figures 1-7, Anderson et al. disclose a method of printing a print job in a computer-based printer system (22, 26, figure 1), the system comprising at least one printer and at least one computer connected to said printer(s) (22, 26, figure 1;

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column 3, lines 55-60), wherein the or each printer has a plurality of different printing configurations at least one of which is manually configurable (column 5, lines 25-34) and the or each computer is capable of generating at least one print job (column 4, lines 6-14), said print job(s) having corresponding printing requirements (column 4, lines 8-13), each printing configuration being capable of satisfying one or more printing requirements (column 4, lines 17-21), the method comprising the steps of using the printing system to:

- i) create one or more print jobs (column 4, lines 1-5);
- ii) determine whether or not the or each print job can be printed using said printer(s) by comparing the printing requirements of the or each print job and the current printing configurations of the printer(s) (column 8, lines 54-67);
- iii) when one or more of the print jobs cannot be printed using said printer(s) on the basis of said current printing configuration (column 9, lines 1-5), determining at least one reconfiguration of the printer configuration(s) that would be capable of satisfying the printing requirement(s) of said print job(s) (column 9, lines 11-16); and
- iv) performing such a reconfiguration of the printer configuration or providing information to enable such a reconfiguration to be carried out by another (column 9, lines 17-23).

(2) regarding claim 2:

Anderson et al. further disclose, a method as claimed in claim 1, wherein step iv) comprises determining when said reconfiguration would require manual reconfiguration

of said printer(s) by a user of the printing system (column 9, lines 17-23), and if so using the printing system to generate and present to said user instructions for manually reconfiguring said printer(s) prior to printing of the print job(s) by the printing system (column 9, lines 24-29).

(3) regarding claim 5:

Anderson et al. further disclose, a method as claimed in claim 1, in which there are a plurality of different preferred reconfigurations which would involve both manual configuration by the user and automatic configuration by the printing system (column 5, lines 25-34).

(4) regarding claim 6:

Anderson et al. further disclose, a method as claimed in claim 1, in which there are a plurality of different preferred reconfigurations (column 5, lines 25-34), and prior to step iv) these preferred configurations are presented to user of the printing system so that the user can select a particular reconfiguration (column 9, lines 17-20), for which reconfiguration instructions are then presented in step iv) (column 9, lines 18-23).

(5) regarding claim 7:

Anderson et al. further disclose, a method as claimed in claim 2, in which a computer includes a user display (46, figure 2), and said presentation of instructions

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includes the display of reconfiguration instructions on the user display (column 4, lines 63-67; column 5, line 1).

(6) regarding claim 8:

Anderson et al. further disclose, a method as claimed in claim 2, in which said presentation of instructions includes the printing of reconfiguration instructions on a printer (column 8, lines 61-64).

(7) regarding claim 12:

Anderson et al. further disclose, a computer-based printing system, the printing system comprising at least one printer and at least one computer connected to said printer(s) (22, 26, figure 1; column 3, lines 55-60), the or each printer having a plurality of different printing configurations at least one of which is manually configurable (column 5, lines 25-34) and the or each computer being capable of generating at least one print job (column 4, lines 6-14), said print job(s) having corresponding printing requirements (column 4, lines 8-13), each printing configuration being capable of satisfying one or more printing requirements (column 4, lines 17-21), wherein the printing system is arranged to: determine whether or not each print job can be printed using said printer(s) by comparing the printing requirements of the or each print job and the current printing configurations of the printer(s) (column 8, lines 54-67); and

when one or more of the print jobs cannot be printed using said printer(s) on the basis of said current printing configuration (column 9, lines 1-5), to determine at least

one reconfiguration of the printer configuration(s) that would be capable of satisfying the printing requirement(s) of said print job(s) (column 9, lines 11-16); and

when said reconfiguration would require manual reconfiguration of said printer(s) by a user of the printing system (column 9, lines 17-23), then use the printing system to generate and present to said user instructions for manually reconfiguring said printer(s) prior to printing of the print job(s) by the printing system (column 9, lines 24-29).

(8) regarding claim 13:

Anderson et al. further disclose, a computer system programmed for providing print job information to printers connected to the computer system by a computer network (column 3, lines 55-60), wherein one or more processors of the computer system are programmed to:

create a print job (column 4, lines 1-5);

determine whether or not the print job can be printed using one or more printers in communication with the computer system by comparing the printing requirements of the print job and the current printing configurations of the one or more printers (column 8, lines 54-67);

when the print job cannot be printed using the one or more printers in their current printing configuration (column 9, lines 1-5), determine at least one reconfiguration of the one or more printers that would be capable of satisfying the printing requirements of said print job (column 9, lines 11-16); and

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perform such a reconfiguration of the one or more printers or providing information to enable such a reconfiguration to be carried out by another (column 9, lines 17-23).

(9) regarding claim 14:

Anderson et al. further disclose, a data carrier having thereon a computer program containing code adapted to program one or more processors of a computer system to:

obtain current printing configurations of one or more printers in communication with the computer system (column 4, lines 2-12);

determine whether or not a print job can be printed using such one or more printers by comparing the printing requirements of the print job and the current printing configuration of the one or more printers (column 8, lines 54-67);

when the print job cannot be printed using the one or more printers in their current printing configuration (column 9, lines 1-5), determine at least one reconfiguration of the one or more printers that would be capable of satisfying the printing requirements of the print job (column 9, lines 11-16); and

perform such a reconfiguration of the one or more printers or providing information to enable such a reconfiguration to be carried out by another (column 9, lines 17-23).

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al. (US Patent Number 6,646,758 B1) in view of Robinson et al. (US Patent Number 5,850,584).

(1) regarding claim 3:

Anderson et al. disclose all of the subject matter as described above except for teaching: v) calculating an economic cost for effecting each of a plurality of possible reconfigurations for which the printer configuration(s) would be capable of satisfying the printing requirements(s) of said print job(s); and vi) selecting according to the calculated economic costs one or more preferred reconfigurations of said printer(s) for which reconfiguration instructions will be presented to said user.

However, Robinson et al. teach: v) calculating an economic cost for effecting each of a plurality of possible reconfigurations for which the printer configuration(s) would be capable of satisfying the printing requirements(s) of said print job(s) (column 6, lines 31-40); and vi) selecting according to the calculated economic costs one or more preferred reconfigurations of said printer(s) for which reconfiguration instructions will be presented to said user (column 7, lines 26-34).

Therefore, it would have been obvious to one of ordinary skilled in the art at the time the invention was made to include the method as taught Robinson et al., in which v) calculating an economic cost for effecting each of a plurality of possible reconfigurations for which the printer configuration(s) would be capable of satisfying the printing requirements(s) of said print job(s); and vi) selecting according to the calculated economic costs one or more preferred reconfigurations of said printer(s) for which reconfiguration instructions will be presented to said user, into the method of Anderson et al. because such feature is efficient.

(2) regarding claim 4:

Anderson et al. disclose all of the subject matter as described above except for teaching in which there are a plurality of preferred reconfigurations, and the reconfiguration information presented to said user includes the corresponding economic cost for each preferred configuration.

However, Robinson et al. teach in which there are a plurality of preferred reconfigurations (column 6, lines 35-37), and the reconfiguration information presented to said user includes the corresponding economic cost for each preferred configuration (column 7, lines 26-34).

Therefore, it would have been obvious to one of ordinary skilled in the art at the time the invention was made to include the method as taught by Robinson et al., in which there are a plurality of preferred reconfigurations, and the reconfiguration information presented to said user includes the corresponding economic cost for each

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preferred configuration, into the method of Anderson et al. because such feature is effective and reliable as it utilizes cost verses print configuration.

(3) regarding claim 9:

Anderson et al. disclose in which a computer includes a user display (column 4, lines 63-67; column 5, line 1).

Anderson et al. disclose all of the subject matter as described above except for teaching in which said presentation of instructions includes a message displayed on the user display informing the user that reconfiguration instructions are to be printed on said printer.

However, Robinson et al. teach in which said presentation of instructions includes a message displayed on the user display informing the user that reconfiguration instructions are to be printed on said printer (column 6, lines 27-31; lines 35-40).

Therefore, it would have been obvious to one of ordinary skilled in the art at the time the invention was made to include the method as taught by Robinson et al., in which said presentation of instructions includes a message displayed on the user display informing the user that reconfiguration instructions are to be printed on said printer, into the method of Anderson et al. because such feature provides user flexibility in order to control the printer.

9. Claims 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al. (US Patent Number 6,646,758 B1) in view of Perry (US Publication Number 2003/0133146 A1).

(1) regarding claim 10:

Anderson et al. disclose all of the subject matter as described above except for teaching in which after reconfiguration of the printer(s), the print job is assigned to more than one printer, and the printing system presents to a user of the printing system instructions for any or all of locating, assembling, collating, binding, or otherwise combining material printed from the printers.

However, Perry teaches in which after reconfiguration of the printer(s), the print job is assigned to more than one printer (paragraph 6, lines 3-10), and the printing system presents to a user of the printing system instructions for any or all of locating, assembling, collating, binding, or otherwise combining material printed from the printers (paragraph 31, lines 1-11).

Therefore, it would have been obvious to one of ordinary skilled in the art at the time the invention was made to include the method as taught by Perry, in which after reconfiguration of the printer(s), the print job is assigned to more than one printer, and the printing system presents to a user of the printing system instructions for any or all of locating, assembling, collating, binding, or otherwise combining material printed from the printers, into the method of Anderson et al. because such feature enhances broader network bandwidth when print job in assigned to more than one printer.

(2) regarding claim 11:

Anderson et al. disclose all of the subject matter as described above except for teaching in which the print job has a plurality of different parts, each part having different printing requirements, and the print job is split according to those different requirements.

However, Perry teaches wherein the print job has a plurality of different parts (paragraph 42, lines 1-6), each part having different printing requirements (paragraph 42, lines 7-14), and the print job is split according to those different requirements (paragraph 47, lines 1-7).

Therefor, it would have been obvious to one of ordinary skilled in the art at the time the invention was made to include the method as taught by Perry, in which the print job has a plurality of different parts, each part having different printing requirements, and the print job is split according to those different requirements, into the method of Anderson et al. because such feature is efficient and fast enough in order not to slow the printer performance.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lin et al. (US Patent Number 6,757,070 B1) disclose a universal print driver that prints to a variety of output devices at the server in a client/server printing environment.

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Zingher (US Patent Number 5,813,348) discloses a print job allocation system interlinks customers of a plurality of printing plants located throughout the world.

11. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Hilina Kassa whose telephone number is (571) 270-1676.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Twyler Lamb could be reached at (571) 272- 7406.

Any response to this action should be mailed to:

Commissioner of Patent and Trademarks

Washington, D.C. 20231

Or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.


Hilina Kassa

May 25, 2007


TWYLER LAMB
SUPERVISORY PATENT EXAMINER